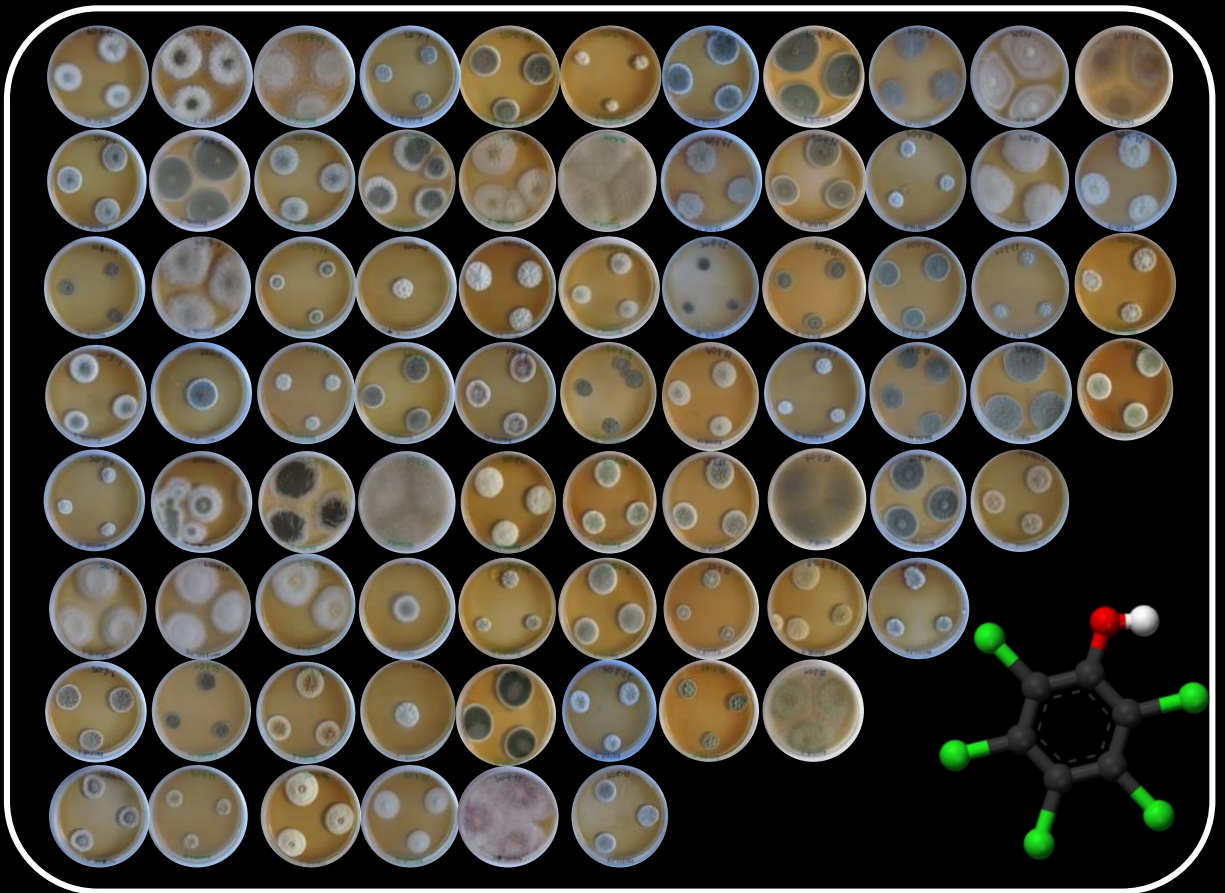


# Belowground fungi are key sentinels in forest soils vulnerable to pentachlorophenol pollution: a mechanistic study in *Quercus suber* forests

Adélia Maria Rocha Gomes Varela



Dissertation presented to obtain the Ph.D degree in Biochemistry  
Instituto de Tecnologia Química e Biológica António Xavier | Universidade Nova de Lisboa

Oeiras,  
March, 2018



UNIVERSIDADE  
**NOVA**  
DE LISBOA

Oeiras, March, 2018

Belowground fungi are key sentinels in forest soils vulnerable to  
pentachlorophenol pollution: a mechanistic study in *Quercus suber* forests

Adélia Varela



ITQB-UNL | Av. da República, 2780-157 Oeiras, Portugal  
Tel (+351) 214 469 100 | Fax (+351) 214 411 277

**[www.itqb.unl.pt](http://www.itqb.unl.pt)**